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Mr. Chairman, members of the subcommittee, I'm Mike Ritchie, President of Photo Science, Incorporated in Lexington, KY and I have the honor of being President of the Management Association for Private Photogrammetric Surveyors (MAPPS) the nation's oldest and largest national association of private sector firms in the surveying, spatial data and geographic information systems field. The more than 170 member firms of MAPPS are engaged in surveying, photogrammetry, satellite and airborne remote sensing, aerial photography, hydrography, aerial and satellite image processing, GPS and GIS data collection, integration and conversion services.

We appreciate this opportunity to testify today on the Federal Government's geospatial information activities. My testimony will focus on two major topics – the Administration's Geospatial One Stop initiative and the general structure and organization of geospatial activities in Federal agencies.

Geospatial One Stop

According to the Federal Geographic Data Committee (FGDC), "the long-term vision for the Geospatial One Stop is to revolutionize e-Government by providing a geographic component for use in all e-Government activities across local, state, tribal, and Federal government." FGDC describes a number of long-term structural and institutional components for Geospatial One Stop, and states the objective that the Geospatial One Stop is to "provide an online access point to geospatial data" for the complete spectrum of public sector users. The emphasis on "one-stop shopping" makes it clear that Geospatial One Stop wants to be the only place its users ever need to look to find the geospatial information they need. At present, Geospatial One Stop intends to provide access to geospatial data that is gathered and maintained by the public sector.

Having a single (or at least primary) access point for government agencies to secure geospatial data is, in principle, an excellent idea. We support the use of an open system approach, with standards to assure interoperability, that are not dependent on a single or particular provider. We support the use of full and open competition, via the qualifications based selection process, for contracts for geospatial services.

By omitting access to private sector data, Geospatial One Stop falls far short of offering one-stop shopping, drastically reduces customers' ability to make informed choices for meeting their geospatial data requirements, and sets Geospatial One Stop up as a competitor to private sector data sources. Rather than competing with business, Geospatial One Stop *should* serve as a vehicle to create opportunities for the private sector to meet public sector geospatial data needs.

Broader participation by private sector interests in setting policy and strategy for Geospatial One Stop, including representation on the Board of Directors, will result in a stronger offering that better represents the interests of the American public and American business

The interests of government at all levels can be well served by having a primary access point for geospatial data of all kinds. By providing appropriate mechanisms for characterizing and comparing various data offerings – content, breadth, depth, detail, accuracy, currency, format, cost, etc. – such an access point can help users efficiently select and acquire the geospatial data that best meets their needs. The key to meeting user needs is to provide access to a wide range of data sources. Many government geospatial databases are built to respond to the demands of particular applications (e.g., TIGER files for Census applications, FEMA flood hazard maps, etc.). Often these databases are useful in other application areas as well, but they will not be useful to all applications. For example, the level of detail may be greater or smaller than the application requires. The problem with insufficient detail is obvious. However, excess detail is not always an advantage, since it may be more expensive to process, and it can create "forest-for-the-trees" problems. Matching data to requirements is often complicated but always necessary. Having a single access point that makes many choices available and which facilitates the process of accurately matching data to requirements can greatly lower both the time and expense of locating the right data for the right application.

The single greatest risk of Geospatial One Stop is that it will provide access only to the geospatial databases created and maintained by the public sector. While public sector databases can be a valuable asset, they represent only a small fraction of the total universe of geospatial databases, and by excluding private sector data, Geospatial One Stop fails to fulfill its objective of providing one-stop shopping. In addition, because public sector geospatial databases are developed for particular timeframes (decennial census, comparison of 1960s vs 1990s land use, etc.), many public sector databases contain information that is not current.

The government recognizes on many fronts that the private sector is far better equipped to develop and maintain timely products, especially where the products are driven by rapidly evolving technology. Firms that specialize in geospatial technologies and applications can be far more responsive to high priority needs for accurate, timely data, for example, to support Homeland Security.

An advantage of publicly developed geospatial databases is that they are available free (or for the cost of reproduction) to the requesting agency. (However, they are clearly *not* free to taxpayers, for it is the taxpayer that paid for the data in the first place!) Nonetheless, despite not being free to requesting agencies, private sector geospatial databases are often more up to date than public sector databases and better meet user requirements. Purchasing better and more current data is often more cost-effective than acquiring a free database that is out of date or that doesn't correspond to other requirements. Such data will either not meet the agency needs at all, or it will require extensive and expensive analysis and post-processing to transform the "free" data into a useable form.

Public agencies and other geospatial data users need to be encouraged to make *informed choices* and to pay for existing private sector geospatial data when the cost is justified by their requirements. These users should also be able to use Geospatial One Stop to determine when their needs cannot be met by existing data from either the public or private sector, so they can consider contracting for geospatial services (such as aerial photography and satellite imagery, and their derivatives) that do meet their particular requirements for time, scale, currency, resolution, standards, and specifications. Geospatial One Stop could also provide a platform for public agencies to work together to purchase commercial data or services for which there is a common need, to share the cost and eliminate duplicated effort.

By putting itself forward as a one-stop shopping environment while omitting access to private sector geospatial data, Geospatial One Stop is not merely incomplete; it is misleading. One-stop shopping strongly suggests that all relevant alternatives are available at the one-stop shop and that there is no particular benefit in looking elsewhere. Geospatial One Stop, as currently constituted, clearly does not offer the full range of geospatial choices and public agencies may well be misled into thinking that there are no other alternatives for geospatial data that meet their needs. This is akin to a card catalog in a government-funded library only including references to government publications. Potentially, this discourages public sector users from seeking private sector geospatial data solutions. The effect would be both anti-business and would constitute unfair government competition.

Geospatial One Stop is a component of the E-Government initiative in the President's Management Agenda. It should be noted that another key component of the same Agenda is an initiative on Competitive Sourcing. Since 1955, it has been the policy of the U.S. Government that it will not start or carry on any commercial activity to

provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels. If it continues on its current path, there is a significant risk that Geospatial One Stop would compete with private offerings.

Geospatial One Stop could deliver on its promise of being a single point of online access to geospatial data by incorporating links to and descriptions of private sector geospatial data sources. This would not be unlike the placement of USGS business partners on the EROS Data Center web site (http://rockyweb.cr.usgs.gov/acis-bin/querypartner.cgi). It is appropriate for Geospatial One Stop to disclaim that any endorsement is made by the presence of a link and to make clear that the user is still responsible for evaluating the appropriateness of various geospatial databases for particular purposes and applications. But by making agencies aware of the existence of the full spectrum of private sector geospatial databases, Geospatial One Stop could substantially advance the interests of E-Government, help agencies at all levels make informed choices, and create valuable market opportunities for private sector data providers.

One reason for Geospatial One Stop's unnecessarily narrow viewpoint is the lopsided makeup of the advisory team that provided guidance to the FGDC and the Administration for the creation of Geospatial One Stop. Most notably, the entire private sector representation was from the ranks of system integrators. This is an important constituency, but not the only one. Not a single commercial data supplier was included on the advisory team.

One consequence of this makeup was poor research. A notable example is that the advisory team held up the British Ordnance Survey as a model for Geospatial One Stop to emulate. This demonstrates a significant misunderstanding of how both business and government work in the U.S. vis-à-vis the U.K. In its own comparison of institutional arrangements for geospatial data (http://www.ordnancesurvey.co.uk/literatu/external/geospat/hsecv.html), the Ordnance Survey summarized the differences between the U.S. and the U.K. as follows:

	United States	**Great Britain**
Freedom of Information	Yes	No
Copyright protection	No	Yes
National coverage of detailed digital data	Limited	Yes
Participation in value added services	No	Yes

The point is not merely that the U.S. and the U.K. are different, but that their approaches to public sector geospatial data gathering, management, and distribution are based on a totally different set of premises and assumptions regarding the role of the public sector in the national economy. We do not believe that the interests of the U.S. are well served, for example, by creating American versions of Crown Copyrights or by waiving our Freedom of Information Act rights. The advisory team's calling out the Ordnance Survey as a model for the U.S. raises fundamental questions about the depth of the research the advisory team conducted, its understanding of the implications of its advice, and its potential inherent bias. It is also distressing to find no mention of the harm done to the U.K. private sector by the anti-competitive tactics of the Ordnance Survey, nor of the active work being done by private sector groups to reform U.K. policy in this area. Moreover, the Ordnance Survey Model differs dramatically from the U.S. model with regard to cost recovery and limits on distribution, wherein the Ordnance Survey's authority and practices are not only significantly more stringent than any U.S. federal agency, but in many respects more restrictive that commercial U.S. licensing agreements. This is *not* a model that should be adopted in the U.S.

As I indicated earlier, we acknowledge and support the value, both to private sector geospatial data providers and to public sector geospatial data users, of making the complete spectrum of available public and private geospatial data resources accessible via Geospatial One Stop. To put some order on this wide range of candidate data sources, a potentially valuable initiative for FGDC and private sector data providers jointly to pursue is the creation of a standard mechanism for characterizing the content, quality, currency, and cost of various geospatial databases. Inadequate quality and currency are never the right choice. However, higher-than-needed quality and currency are also not necessarily the right choice if unneeded detail or precision results in too high a cost. The objective to is to locate geospatial data that *fits* the user's applications and requirements. Such a mechanism could assist users in identifying and securing the geospatial data that best meets their requirements.

Structure and Organization of Federal Geospatial Activities

Mr. Chairman, Geospatial One Stop is a welcome and necessary first step in better organizing, managing and carrying out the Federal Government's geospatial activities. We commend the Bush Administration for this initiative. However, it is only a first step. Bold, decisive action is needed to eliminate the extraordinary waste, duplication and inefficiency in the Federal government's geospatial activities, the lack of a strong partnership in Federal agencies' relationship with State and local government, and the insidious extent to which there continues to be unfair government competition with the private sector.

Efforts by the Bush Administration to revise OMB Circular A-16 and create Geospatial One-Stop, the Clinton Administration's restructuring of the Federal Geographic Data Committee (FGDC) and creation of the National Spatial Data Infrastructure (NSDI), and Congress's attempt to review the Federal mapping structure through the recent National Academy of Public Administration study all have one thing in common: they attempted to treat the symptoms, rather than the decease.

It is our strong belief that a comprehensive investigation is needed to uncover the waste of tax dollars and ineffective government operations. This study will provide an opportunity for Congress and the Administration to implement a reform initiative to better serve the Nation.

Consider the following:

- There are more than 40 Federal agencies engaged in geospatial activities. Neither the agencies, nor OMB, has a comprehensive understanding of what agencies are involved in geospatial activities. No one in the Federal government has a current, accurate accounting of the annual geospatial expenditures. It is virtually impossible to determine how many Federal employees are involved in these activities. There is no balance sheet, performed to accepted cost accounting standards, of the capital investment made in equipment and plant (office space, etc.). There is no accurate data base on the amount of geospatial work performed in-house and by contract.

- The relationship of each agency with other Federal agencies and with State, local and foreign government agencies, is poor. There is considerable duplication and redundancy, little sharing of data, poor performance on developing standards for "interoperability" of data. Even in the post 9/11 homeland security environment, turf battles among agencies are breaking out. No agency has any official status of "lead agency" on homeland security geospatial activities.

- There are Federal agencies that operate mapping capabilities in high-priced office space that is expensive, inefficient, and far more luxurious and costly than firms in the private sector. While private mapping firms tend to be located in industrial/flex campuses, Federal agencies have mapping shops in urban, downtown or high priced suburban buildings that the government owns or leases at prices the private sector cannot afford. Moreover, these agencies almost exclusively operate with one work shift. Even with lower overhead of less luxurious office space, due to the cost of equipment, private mapping firms operate a second or, in some cases, a third shift. The Federal government owns or leases numerous warehouses, some the size of football fields, full of paper maps that the government has printed at taxpayers' expense. These maps will never be used. They are out of date, too many were printed, the warehouses duplicate each other, and due to poor planning, the government is left with millions of paper maps, when the world has moved to digital mapping and the government is still spending hundreds of thousands of dollars each year warehousing maps it will never use, sell or even give away.

- There is in the geospatial structure, no uniform application of the Federal policy that the government will not compete with the private sector. There is no accurate record of the extent to which the Federal government utilizes (or duplicates or competes with) the private sector (including the dollar amount and percentage contracted to the private sector and whether than has increased in the recent past and can increase in the future). Although mapping-related activities are considered "commercial" in nature, agency compliance with the Federal Activities Inventory Reform (FAIR) Act (Public Law 105-270), Office of Management Budget Circular A-76 and Executive Order 12615 has been minimal. The relevant provisions of the Economy Act and the Intergovernmental Cooperation Act, intended to prevent unfair government competition with the private sector, are routinely ignored.

- Federal agencies provide grants or other Federal financial assistance to non-Federal entities (including but not limited to State, local and foreign government) to perform surveying and mapping activities. Many of these activities could be

performed by the private sector. Moreover, Federal agencies provide grants and other Federal financial assistance to universities to perform surveying and mapping activities or research. In fact, these activities could be performed by the private sector and the "research" is on activities already commercially available.

- With the advent of new airborne and space-based remote sensing and imaging technologies, there are new business models under which government agencies can now buy licenses to commercial off the shelf maps and images, rather than the government owning data. However, civilian Federal agencies are very slow to embrace this concept. We are encouraged by recent developments, including the "Tenet memo" and the recently released White House Policy on Commercial Remote Sensing, and believe they can help stimulate new thinking and new ways of doing business in the government, as well as a new paradigm for government utilization of the private sector. As noted earlier with regard to Geospatial One Stop, the Federal Government's utilization of private sector data is minimal and results in wasteful duplication. We would urge the Subcommittee to undertake a review of OMB Circular A-130 to review government information policy generally and its impact on geospatial data in particular. We also support expanding the White House Policy on Commercial Remote Sensing to include airborne, as well as space borne, data collection platforms and the data generated therefrom.

- Surveying, mapping and related geographic information can play a critical role in government at all levels in homeland security, for emergency preparedness, critical infrastructure inventory, and emergency response. There is serious question as to whether the post 9/11 period has enhanced agency coordination or caused a proliferation of effort. Many States and local units of government need current, accurate maps and geographic information for homeland security applications, but the Federal government is not efficiently assisting, due to the lack of coordination and leadership in the government, and turf battles among agencies are emerging. The Department of Homeland Security Act failed to address this issue.

Other Issues

Mr. Chairman, let me state for the record that MAPPS strongly supports the provision Chairman Davis included in H.R. 1837, the Services Acquisition Reform Act (SARA), in section 214 of the bill as introduced, to bring the definition of geospatial services in the government's procurement laws up to date with state of the art technology and the realities of the changes in technology and professional practice. Enactment of this definition will provide the government with high quality geospatial data at a price that is fair and reasonable to the government, while permitting private firms to produce at the highest standards based on their competence and qualifications.

Finally, we would be remiss if we did not put on the record two ominous clouds looming on the horizon. The geospatial community, both in government and private practice, and the clients and public we serve, will be seriously damaged by these two impending issues if they are not adequately addressed. The first is the dislocation that is being created by the states with regard to licensing of photogrammetrists and other geospatial practitioners. The current policy of the state licensing board in Florida, and the manner in which states are enacting policies or legislation, is threatening true interstate commerce in our field. Additionally, the advent of offshore subcontracting of geospatial work is not only damaging to U.S. workers and harmful to the long term interests of domestic businesses, but given that geospatial data provides location information about our nation's critical infrastructure, sending mapping work offshore, particularly to countries where there are known to be terrorist cells, is extremely harmful to our homeland security. We urge Congress' attention to the loophole in the Service Contract Act that permits this practice on Federal contracts and the desirability of this practice on non-Federal work.

Mr. Chairman, numerous studies have been conducted which detail the lack of coordination of Federal mapping and geospatial activities, and the government's duplication of and competition with the private sector. These studies date back to 1933. The time for action is long overdue. We hope this hearing will help stimulate that action. We commend you for your interest and leadership and we stand ready to work with Congress and the Executive Branch to better serve the geospatial needs of the American people in economic development, resource management, environmental protection, infrastructure construction and maintenance and homeland security.